

REMARKS

Favorable reconsideration and withdrawal of the rejection set forth in the above-mentioned Official Action in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 1 through 21 remain pending in the application. Claims 1, 5, 7, 8, 11, 13, and 15 through 17, and 19 through 21 have been amended to even more succinctly define the invention and/or to improve their form. It is respectfully submitted that no new matter has been added. Claims 1, 7, and 13 are the only independent claims present in the application.

Claims 1 through 21 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,422,743 (Farrell, et al.) for the reasons detailed in the Official Action. The rejection is respectfully traversed.

Claim 1 calls for an image input and output method in which image data is input from at least one image input section and the input image data is output to at least one image output section. The method comprises the steps of: dividing image processing of one image processing unit to be performed into an image input job in which image data is input from the image input section and into an image output job in which image data is output to the image output section; managing execution of the image input job and execution of the image output job independently; and after a preceding image input job is finished, starting a subsequent image input job before the image output job corresponding to the preceding image input job is finished.

Amended independent Claim 7 calls for an image input and output apparatus including input means for inputting image data from at least one image input

section including at least one of an interface section for connecting an external device and a reader section; output means for outputting image data to at least one image output section including a printer section; obtaining means for obtaining image processing parameters, which regulate image processing of one image processing unit to be performed; and controlling means for controlling an input of image data and an output of image data according to the image processing parameter obtained by the obtaining means. The controlling means performs its functions in accordance with the steps of Claim 1.

Amended independent Claim 13 calls for an image processing system in which image data input by at least one image input means is output by at least one input means. The image processing system includes the image input and output apparatus as recited in amended independent Claim 7.

Applicant respectfully submits that Farrell, et al. does not disclose or suggest either a method or an apparatus/system, wherein a subsequent image input job is started before an image output job corresponding to a preceding image input job is finished. Rather, Farrell, et al., as understood, discloses determining whether a scanned page is programmed to receive a Document Defect Repair (“DDR”), applying a DDR template to the relevant page, and storing the image in memory. Any remaining pages are scanned, and the entire job is stored in memory, from which it can be output. (See col. 6, line 64 to col. 7, line 4.) Further, Farrell, et al. is not understood to disclose or suggest starting a subsequent image input job before the image output job corresponding to the preceding image input job is finished, as recited in each of the independent claims.

In view of the foregoing, it is respectfully submitted that amended independent Claims 1, 7, and 13 are allowable over Farrell, et al.

Claims 2 through 6, 8 through 12, and 14 through 21 depend either directly or indirectly from one of Claims 1, 7, and 13 and are allowable by virtue of their dependency and in their own right for further defining Applicant's invention. Individual consideration of the dependent claims is respectfully requested.

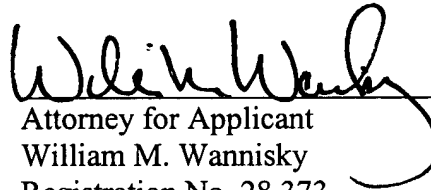
This Amendment could not have been presented earlier in the prosecution, inasmuch as it was earnestly believed that the claims heretofore on file were in condition for allowance. No new claims have been presented. It is believed that the Examiner's familiarity with the present application will allow full consideration hereof without the expenditure of undue time and effort.

In view of the foregoing, it is respectfully submitted that all claims present in the application are in condition for allowance. Favorable reconsideration and early passage to issue of the present application are respectfully requested.

Favorable reconsideration and early passage to issue of the present application are earnestly solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


Attorney for Applicant
William M. Wannisky
Registration No. 28,373

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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VERSION WITH MARKINGS SHOWING CHANGES MADE TO CLAIMS

1. (Twice Amended) An image input and output method in which image data is input from at least one image input section, [including at least one of an interface section for connecting to an external device and a reader section] and the input image data is output to at least one image output section[, including a printer section], said method comprising the steps of:

dividing image processing of one image processing unit to be performed into an image input job in which image data is input from the image input section and into an image output job in which image data is output to the image output section;

managing execution of the image input job and execution of the image output job independently; and

after a preceding image input job is finished, starting a subsequent image input job before the image output job corresponding to the preceding image input job is finished.

5. (Amended) An image input and output method according to Claim 1, further comprising the step of creating a plurality of management tables, which hold information used for managing the image input job and the image output job.

7. (Twice Amended) An image input and output apparatus comprising:

input means for inputting image data from at least one image input section
[including at least one of an interface section for connecting to an external device and a
reader section];

output means for outputting image data to at least one image output section
[including a printer section];

obtaining means for obtaining image processing parameters, which regulate
image processing of one image processing unit to be performed; and

controlling means for controlling an input of image data and an output of
image data according to the image processing parameter obtained by said obtaining
means[;].

wherein said controlling means:

(i) divides the image processing of said [the] one image unit
processing unit expressed by the image processing parameters obtained by said [the]
obtaining means into an image input job in which image data is input by said image input
means and an image output job in which image data is output by said output means;

(ii) manages execution of the image input job and execution of the
image output job independently; and

(iii) after a preceding image input job is finished, starts a subsequent
image input job before the image output job corresponding to the preceding image input
job is finished.

8. (Amended) An image input and output apparatus according to Claim 7, further comprising storage means for storing image data,

wherein the image data input by said input means is stored in [into] said image storage means in the image input job, and the image data read from said image storage means is output by said output means in the image output job.

11. (Amended) An image input and output apparatus according to Claim 7, wherein said controlling means comprises a plurality of management tables, which hold information used for managing the image input job and the image output job.

13. (Twice Amended) An image processing system in which image data input by at least one image input means[, including at least one of an interface section for connecting to an external device and a reader means,] is output by at least one image output means[, including a printer means,] comprising:

obtaining means for obtaining image processing parameters, which regulate image processing of one image processing unit to be performed; and

controlling means for controlling an input of image data and output of image data according to the image processing parameters [parameter] obtained by said obtaining means[;],

wherein said controlling means:

(i) divides the image process of said [the] one image processing unit expressed by said [the] image processing parameters obtained by said [the] obtaining means into an image input job in which image data is input by the image input means and an image output job in which image data is output by said output means;

(ii) manages execution of the image input job and execution of the image output job independently; and

(iii) after a preceding image input job is finished, starts a subsequent image input job before the image output job corresponding to the preceding image input job is finished.

15. (Amended) An image processing system according to Claim 13, wherein said [the] image input means inputs at least one of image data obtained by reading an original image, image data developed from code data expressing an image, and image data received from an external unit.

16. (Amended) An image processing system according to Claim 13, wherein said [the] image output means performs at least one of image printing according to image data and image-data transmission.

17. (Amended) An image processing system according to Claim 13, wherein said controlling means comprises a plurality of management tables, which hold information used for managing the image input job and the image output job.

19. (Amended) An image input and output method according to Claim 1, wherein said at least one input section includes an interface section for connecting [said interface section connects] to a computer or a facsimile apparatus.

20. (Amended) An image input and output apparatus according to Claim 7, wherein said at least one input section includes an interface section for connecting [said interface section connects] to a computer or a facsimile apparatus.

21. (Amended) An image processing system according to Claim 13, wherein said at least one input means includes an interface section for connecting [said interface section connects] to a computer or a facsimile apparatus.

VERSION WITH MARKINGS SHOWING CHANGES MADE TO CLAIMS

1. (Three Times Amended) An image input and output method in which image data is input from at least one image input section, and the input image data is output to at least one image output section, said method comprising the steps of:

dividing image processing of one image processing unit to be performed into an image input job in which image data is input from the image input section and [into] an image output job in which image data is output to the image output section;

managing execution of the image input job and execution of the image output job independently; and

after a preceding image input job is finished, starting a subsequent image input job before the image output job corresponding to the preceding image input job is finished,

wherein image data obtained by reading an original image and image data received from an external unit are input in the image input job.

3. (Amended) An image input and output method according to Claim 1, wherein [at least one of] (i) the image data obtained by reading [an] the original image, (ii) image data developed from code data expressing an image, and (iii) the image data received from [an] the external unit [is] are input in the image input job.

7. (Three Times Amended) An image input and output apparatus comprising:

input means for inputting image data from at least one image input section;

output means for outputting image data to at least one image output section;

obtaining means for obtaining image processing parameters, which regulate image processing of one image processing unit to be performed; and

controlling means for controlling an input of image data and an output of image data according to the image processing parameter obtained by said obtaining means,

wherein said controlling means:

(i) divides the image processing of said one image unit processing unit expressed by the image processing parameters obtained by said obtaining means into an image input job in which image data is input by said image input means and an image output job in which image data is output by said output means;

(ii) manages execution of the image input job and execution of the image output job independently; and

(iii) after a preceding image input job is finished, starts a subsequent image input job before the image output job corresponding to the preceding image input job is finished,

wherein image data obtained by reading an original image and image data received from an external unit are input by said input means in the image input job.

9. (Amended) An image input and output apparatus according to Claim 7, wherein [at least one of] (i) the image data obtained by reading [an] the original image, (ii) image data developed from code data expressing an image, and (iii) the image data received from [an] the external unit [is] are input by said input means in the image input job.

13. (Three Times Amended) An image processing system in which image data input by at least one image input means is output by at least one image output means comprising:

obtaining means for obtaining image processing parameters, which regulate image processing of one image processing unit to be performed; and

controlling means for controlling an input of image data and output of image data according to the image processing parameters obtained by said obtaining means,

wherein said controlling means:

(i) divides the image [process] processing of said one image processing unit expressed by said image processing parameters obtained by said obtaining means into an image input job in which image data is input by the image input means and an image output job in which image data is output by said output means;

(ii) manages execution of the image input job and execution of the image output job independently; and

(iii) after a preceding image input job is finished, starts a subsequent image input job before the image output job corresponding to the preceding image input job is finished,

wherein said image input means inputs image data obtained by reading an original image and image data received from an external unit.

15. (Twice Amended) An image processing system according to Claim 13, wherein said image input means inputs [at least one of] (i) the image data obtained by reading [an] the original image, (ii) image data developed from code data expressing an image, and (iii) the image data received from [an] the external unit.